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PATENT SPECIFICATION

Convention Date (Germany): Aug. 4, 1926.

275,606

Application Date (in United Kingdom): July 26, 1927. No. 19,866/27.

Complete Accepted: Oct. 27, 1927.

COMPLETE SPECIFICATION.

Insertable Central Stock Magazine for Cartridges with Projecting Edges.

We, MAUSER-WERKE AKTIENGESELLSCHAFT, located at Oberndorf on the Neckar, Germany, a corporation duly organised under the laws of Germany, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

The present invention has reference to a central stock magazine for fire arms of all kinds, in which a large number (25 and more) of cartridges with projecting edges can be arranged in a zig-zag like manner. The creation of such magazines for such edged cartridges, was prevented pre-eminently by the difficulty of arranging the cartridges in such an orderly manner that the edge of an upper cartridge should always lie in front of the edge of the one lying beneath it.

Now in order to obtain the orderly insertion of the cartridges in the magazine, according to the present invention, as shown in the accompanying drawings in one constructional example given by way of example in Figures 1—4, firstly the magazine lips l are by means of inwardly projecting lugs l^1 in their rear part joining on to the rear wall of the magazine for a short (block) section a—b arranged to stand more closely together than usual, so that the introduction of a cartridge at this point of the magazine is quite impossible (Figures 1—3). The filling of the magazine with cartridges is, therefore, only possible before this block section a—b, as only before this point are the magazine lips made wide enough to allow the pressing in of the cartridges into the magazine. Each cartridge to be inserted into the magazine must, as may be seen from Figure 4 be pressed with its edge under the lugs l^1 and here pushed upon the wall of the magazine to the extent of the section or stretch b—a. As the width of the free magazine opening opposite the cartridge is shortened to the extent of the block section a—b consequently the shot of the cartridge, as long as it is not fully pressed in and pushed back so as to bear in its correct position against the rear wall of the magazine, projects in a blocking manner and beyond the front wall of the magazine and thus prevents another cartridge being pushed into the magazine, as long as the first one has not taken up its proper position in the magazine. Consequently all the cartridges inserted in the magazine must be caused to bear with their edges positively against the wall of the magazine whilst, as each succeeding cartridge can only be pressed into the magazine from the front, the edge of the cartridge last inserted must lie before the edge of the preceding one already introduced into the magazine.

In order to maintain the position of the cartridge edges during the filling and emptying of the magazine, the width of the magazine is, corresponding to the lesser lower width of the bundle or group of cartridges inserted in the magazine in a fan-like manner, arranged to taper or decrease in width to the same extent as the fan-like bundle of cartridges, so that any hurling together of the cartridges contained in the magazine by the recoil set up by firing is rendered impossible, and thus the maintenance of the cartridge edges in their orderly position is ensured. Consequently the forming of the magazine walls is so effected that the magazine may be rendered suitable for the reception of a large number of cartridges of the edged type. The side walls of the magazine are bent radially in order to obtain a suitable form for the inserted bundle of cartridges and, thus, according

to the invention secondly the rear wall w^1 of the magazine is formed into a circle whilst, taking as a basis a pointed shot edge cartridge of the type shown in Figure 4, the radius of curvature for the central position Z is preferably calculated at $r = 300^m/_m$, whilst the curvature of the front wall w^2 is composed of two tangential circular arcs, the radii of which for the above mentioned embodiment are preferably arranged with $r^1 = 170$ and $r^2 = 250^m/_m$. Through this composition and the curvature of the arc of radius r^1, and by suitably locating the centre Z^1 of said arc, it is realized that the uppermost part c—d (Figure 1) of the front wall runs obliquely in relation to the rear wall, so that the upper part of the magazine widens rapidly.

As the orderly insertion of the upper cartridges is especially jeopardized by the tilting movements induced by the pressing and pushing in of cartridges under the magazine slips, this part of the magazine chamber must be especially and accurately shaped to the external form of the bundle of cartridges lying there, and this is secured by the special oblique position of the wall section c—d. However, in inserting the upper cartridge in the magazine, should by any chance its edge get behind the edge of the cartridge lying beneath it instead of in front of it as is necessary, then the special shaping of the section c—d will cause the misplaced cartridge, in rising in this section, to be pushed forwards, so that its edge will again come in front of the edge of the lower cartridge, and hence into the proper orderly position, required. The formation of the magazine wall on the section c—d thus induces and ensures the positive correct positioning of the cartridge with the requisite marginal adjustment which alone can ensure a faultless loading and firing of the weapon.

The lower part, section d—e of the front wall w^2 is preferably curved with a radius of $250^m/_m$ whilst, through the selection shown of the centre Z^2 upon this section a relatively lesser tapering of the magazine width, corresponding to the form of the bundle of cartridges lying in this part of the magazine, is secured.

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is:—

1. Insertable central stock magazine for edge cartridges characterised by the fact that for rendering possible the zig-zag like insertion of a large number of such cartridges with a projecting edge the magazine aperture in the rear part possesses an additional blocking contraction the magazine lips being so broadened towards the inside that the insertion of a cartridge at this rear section (a—b) is quite impossible and the cartridges can always only be inserted from the front with their edges towards the rear with the edge of the following cartridge in front of that of the preceding one.

2. Central stock magazine according to Claim 1, characterised by the fact that with a uniform circular curving of the rear wall, the curvature of the front wall is effected according to two combined circular arcs, the shorter upper one of which is of greater and the longer lower one of smaller curvature.

3. A constructional form of the insertable magazine according to Claim 1 for pointed shot cartridges of the type shown in Figure 4, characterised by the fact that the rear wall is arranged with a radius of curvature of $r = 300^m/_m$ and the radii of curvature of the arcs of the front wall are $r^1 = 170^m/_m$ and $r^2 = 250^m/_m$ for the corresponding arcs of circle.

4. A central stock magazine for cartridges with projecting edges, substantially as described and illustrated.

Dated this 26th day of July, 1927.

HASELTINE, LAKE & Co.,
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19—25, West 44th Street, New York, U.S.A.,
Agents for the Applicants.

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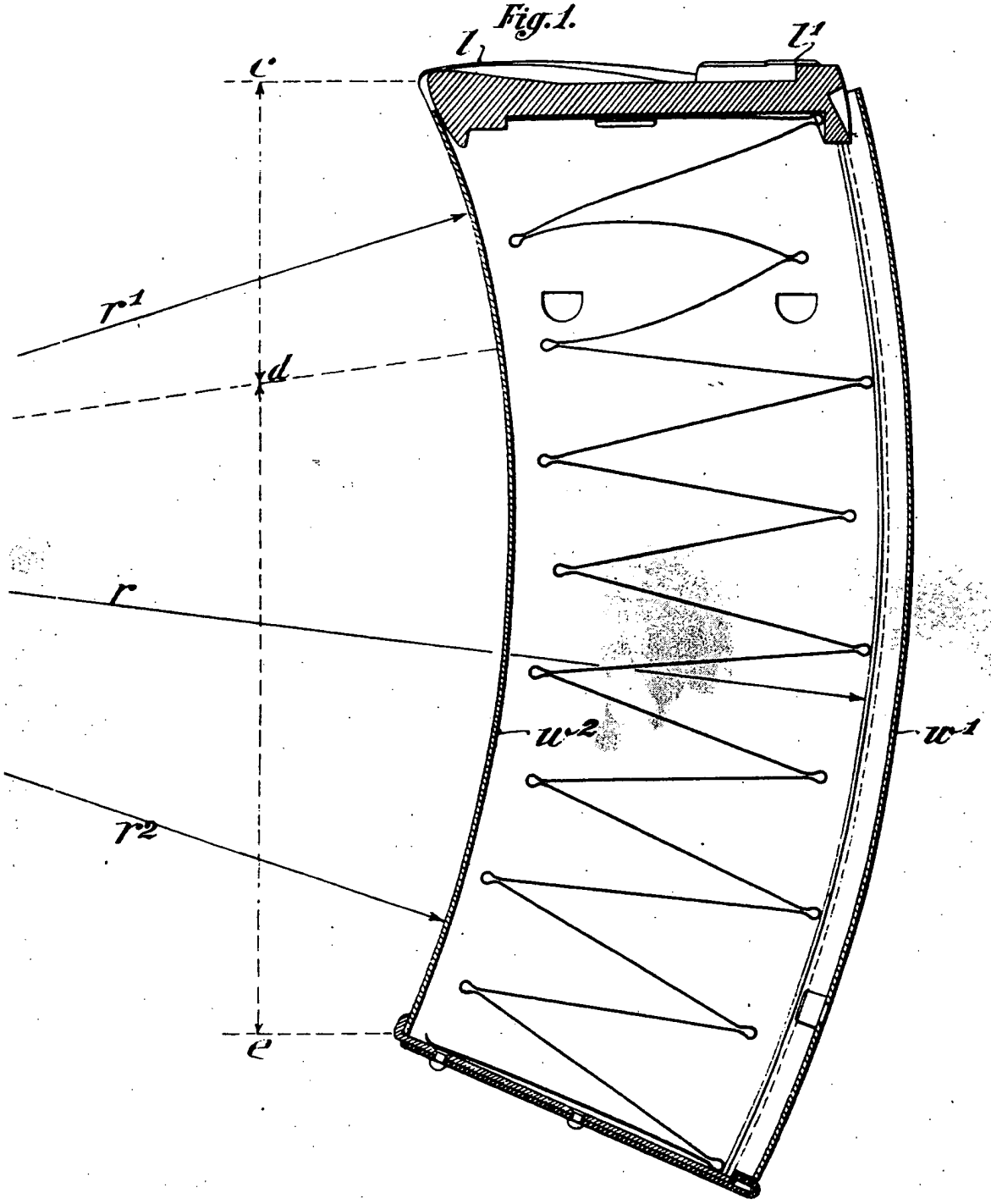
30
Oct. 1927

275606 British

Manser

1 SHEET

Fig. 1.



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42-3-0

275,606 COMPLETE SPECIFICATION

[This Drawing is a reproduction of the Original on a reduced scale.]

Fig.2.

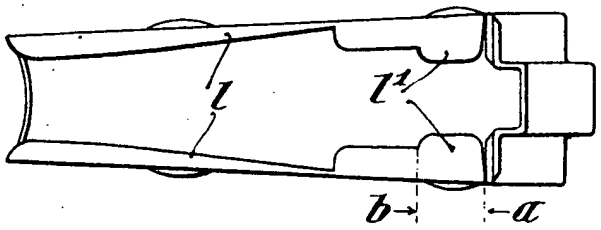
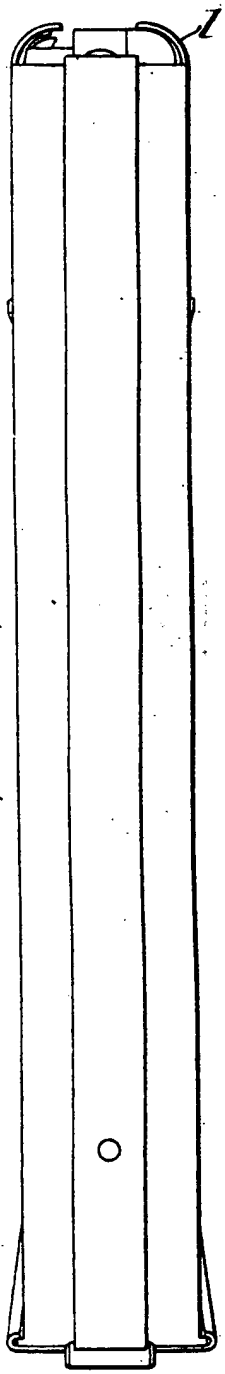


Fig.3.



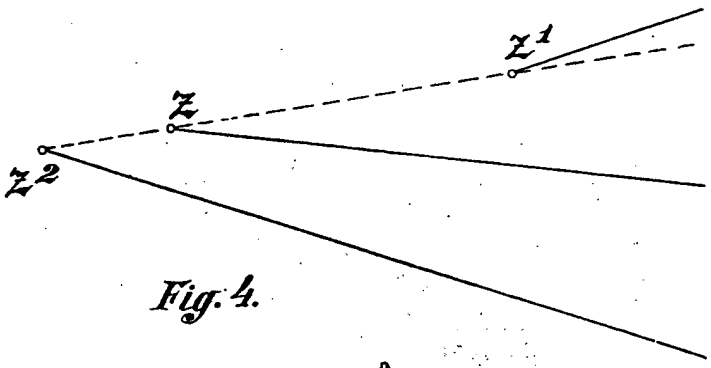
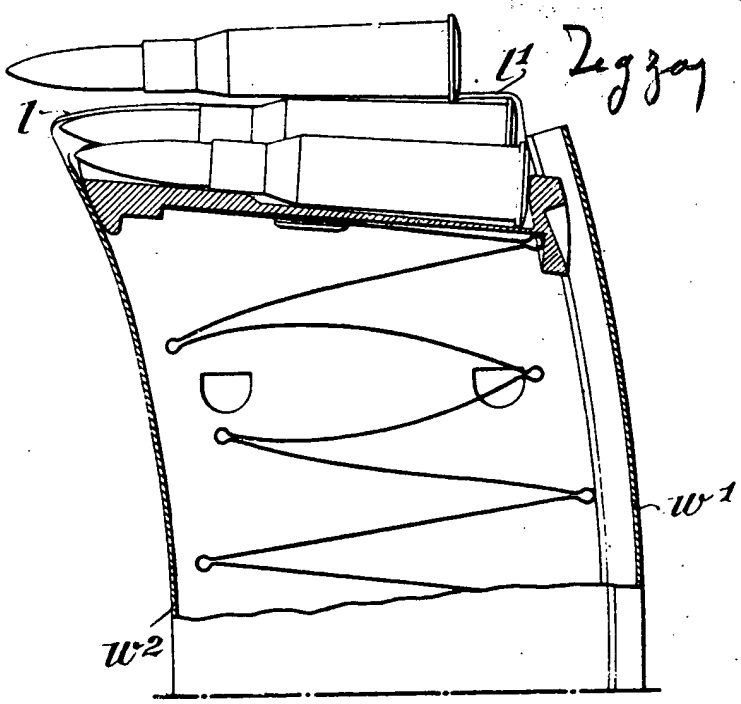


Fig.4.



Central block may